



UNITED STATES DEPARTMENT OF COMMERCE
Pat nt and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/392.626 09/09/99 MOGI

S 35.C13816

005514 MMC1/0403
FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK NY 10112

EXAMINER

PHAM, H

ART UNIT

PAPER NUMBER

2861

DATE MAILED:

04/03/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/392,626

Applicant(s)

Mogi et al.

Examiner

Hai C. Pham

Group Art Unit

2861



☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-26 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-26 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2861

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. The following claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11:

- The following claim element "*the* center of rotation" at line 15 lacks antecedent basis.

Claim 17:

- The following limitation "an adjustment member for adjusting a *relative position* of said multi-beam semiconductor laser" appears to be vague in that the reference element relative to which the position of the semiconductor laser is being adjusted, is not indicated.

Claim 19:

Art Unit: 2861

- The following claim element "*the* center of rotation" at line 13 lacks antecedent basis.

Claim 25:

- The following limitation "an adjustment member for adjusting a *relative position* of said multi-beam semiconductor laser" appears to be vague in that the reference element relative to which the position of the semiconductor laser is being adjusted, is not indicated.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

5. Claims 1-3, 5-8 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Asami et al (JP 10-10447).

Asami et al discloses a multi-beam scanning device comprising a multi-beam light source unit (12, Fig. 2) having a multi-beam semiconductor laser (22b, Fig. 3) and a laser holder (21), a scanning image means (14, Fig. 1) for scanning a plurality of laser beams to form an image on a surface to be scanned (photoreceptor not shown), a housing (11) for supporting said scanning means and said multi-beam light source unit, the multi-beam semiconductor laser being fixed to

Art Unit: 2861

said laser holder with inclination with respect to a reference surface of the laser holder for adjusting a beam interval between a plurality of laser beams (see Abstract and also Fig. 3), the multi-beam semiconductor laser having a plurality of aligned emission points (22b, Fig. 3) and the laser holder being integrated with a lens barrel (24, Fig. 2) holding a collimator lens (24a).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4, 9 and 11-13, 15-21 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asami et al in view of Nakajima et al (U.S. 5,999,345).

Asami et al further discloses using screws (23) for fixing the multi-beam light source unit to the housing. However, Asami et al does not disclose a two-dimensionally arrayed emission points and the center of rotation of the multi-beam light source unit and the plurality of emission points forming a straight line with the fixing portions.

Nevertheless, Nakajima et al discloses a multi-beam light source unit (Figs. 1 and 2) whose emission points (LD1-R and LD1-L) and the center of their rotation (a1) form a straight line with the fixing points (103), and the multi-beam light source unit including a two-dimensionally arrayed emission points (Fig. 13).

Art Unit: 2861

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the multi-beam scanning device of Asami et al with the aforementioned teachings of Nakajima et al for the purpose of securely fixing the laser holder to the housing.

8. Claims 14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asami et al ('447) in view of Nakajima et al, as applied to claims 11 and 19 above, and further in view of Asami (JP 09-243944).

Asami et al ('447), as modified by Nakajima et al, discloses all the claimed invention except for the fixing portions being adhered with an adhesive.

However, it is well known in the art that adhesive is commonly used to secure different parts together in a printing device. Asami ('944), for example, discloses a similar structure for fixing a laser holding to the housing of a laser beam scanning device with ultraviolet curing adhesive after the laser unit being optically adjusted to produce a desired spot diameter on the surface of a photoreceptor drum.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the multi-beam scanning device of Asami et al ('447), as modified by Nakajima et al, with the aforementioned teachings of Asami ('944) for the purpose of securely fixing the laser unit to the housing of the scanning device.

Art Unit: 2861

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Pham whose telephone number is (703)308-1281.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist of the Technology Center whose telephone number is (703) 308-0956.

The facsimile numbers for Technology Center 2800 are (703) 305-3431, (703) 305-3432, (703) 308-7722, (703) 308-7724, (703) 308-7382.



Hai C. Pham

Patent Examiner - Art Unit 2861

March 31, 2000



N. Le
Supervisory Patent Examiner
Technology Center 2800